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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,998	10/11/2000	Alexander C. Loui	75063BTHC	5225

1333 7590 03/16/2004

PATENT LEGAL STAFF
EASTMAN KODAK COMPANY
343 STATE STREET
ROCHESTER, NY 14650-2201

EXAMINER

LONG, HEATHER R

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 03/16/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/685,998

Applicant(s)

LOUI ET AL.

Examiner

Heather R Long

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2000.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 11 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "66" has been used to designate both the user controls and the digital processor. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:
- a. Page 7, line 8: change "back" to --forward--.
 - b. Page 7, line 9: change "41" to --42--.
 - c. Page 8, line 2: change "68" to --66--.
 - d. Page 8, lines 20 and 21: change "control microprocessor 68" to --digital processor 66--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Misawa et al. (U.S. Patent 5,444,482); supported by Legall et al. (U.S. Patent 5,929,916).

Regarding claim 1, Misawa et al. discloses a method for simultaneously recording motion and still images, comprising the steps of: capturing a motion image sequence with a digital video camera adapted to record both low resolution motion image sequences and high resolution still images; simultaneously capturing a still image sequence having full resolution images and lower frame rate than the motion capture sequence; compressing the motion image sequence using interframe compression and storing the compressed motion image sequences; and compressing the still images using intraframe coding and storing the compressed still image data (col. 7, lines 49-65). However, Misawa et al. fails to disclose accompanying audio of the scene while capturing a motion image sequence. Official Notice is taken that both the concept and advantages of accompanying audio of a scene while capturing a motion image sequence are well known and expected in the art. It would have been obvious to accompany the motion image sequence with audio in order to provide a viewer the chance to hear what was going on and not just see what happened.

Referring to the supporting reference, Legall et al. discloses that by using MPEG a user obtains low and full resolution images, the I-frames being full resolution and the B-frames and P-frames the low resolution

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frames. Fig. 3 also discloses MPEG using intraframe and interframe coding. The intraframe coding is used with the I-frames (still images) (col. 11, line 66 – col. 12, line 2).

5. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Misawa et al. (U.S. Patent 5,444,482) in view of Yamagishi 6,104,752 (U.S. Patent 6,104,752); and supported by Legall et al. (U.S. Patent 5,929,916).

Regarding claim 2, Misawa et al. discloses a digital/still camera comprising: an image sensor (12) for providing a sequence of image frames; means for providing a repeating sequence of full resolution image frames regularly interspersed between reduced resolution image frames; and a recorder for storing a repeating sequence of full and reduced resolution frames of pixel values (col. 7, lines 49-65). However, Misawa et al. fails to disclose a first image buffer for storing at least one full resolution frame of pixel values and a second image buffer for storing a plurality of reduced resolution frames of pixel values.

Referring to the supporting reference, Legall et al. discloses that by using MPEG a user obtains low and full resolution images. The full resolution images being I-frames and the low resolution images being B-frames and P-frames (col. 11, line 66 – col. 12, line 2.)

Referring to the Yamagishi reference, Yamagishi discloses an MPEG system that comprises a first image buffer for storing at least one full resolution frame of pixel values, and a second image buffer for storing a plurality of reduced resolution frames of pixel values (col. 7, lines 11-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Yamagishi with Misawa in order to provide buffers before the digital recorder for controlling the recording of the compressed image data.

Regarding claim 3, Misawa et al. discloses a digital motion/still camera, wherein the repeating sequence has a single full resolution frame followed by a plurality of low resolution images (col. 7, lines 49-65).

Regarding claim 4, Misawa et al. discloses a digital motion/still camera, wherein the full resolution image is stored using a low resolution component stored as part of a motion sequence, and a full resolution component (MPEG of the motion image sequence, and JPEG for the still pictures) (col. 7, lines 49-65).

Regarding claim 5, Misawa et al. discloses a digital motion/still camera, wherein the apparatus further includes a processor (20) coupled to the first image memory, that processes the full resolution frames prior to recording, and produces from a full resolution image frame both a low resolution frame and a high resolution image frame (col. 4, lines 1-15).

Regarding claims 6 and 7, Misawa et al. in view of Yamagishi fails to disclose that the processing period for the still image is longer than the capture frame period and that the processor also processes the reduced resolution frames in a processing period that is shorter than the capture frame period. However, Official Notice is taken that both the concept and advantages of the processing period for the still image is longer than the

capture frame period and that the processor also processes the reduced resolution frames in a processing period that is shorter than the capture frame period are well known and expected in the art. It would have been obvious that the processing period for the still image is longer than the capture frame period and that the processor also processes the reduced resolution frames in a processing period that is shorter than the capture frame period because it takes longer for the full resolution images to be processed than the low resolution images to be processed.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Misawa et al. in view of Yamagishi as applied to claim 1 above, and further in view of Balakrishnan et al. (U.S. Patent 6,208,691).

Regarding claim 8, Misawa et al. in view of Yamagishi differs from claim 8 in that claim further requires the digital/still camera to comprise a control for allowing the operator to set the numbers of full resolution frames to be captured per second.

Referring to the Balakrishnan et al. reference, Balakrishnan et al. discloses a video encoder/decoder system wherein a user can set the number of full resolution frames to be captured per second (col. 11, lines 34-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Balakrishnan et al. with the teachings of Misawa et al. to allow the user to

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select how many still frames they would like in order to preserve the memory.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Ito et al. (U.S. Patent 6,693,960) discloses in Fig. 15 a moving picture encoder/decoder, wherein the full resolution image is stored using a low resolution component stored as part of a motion sequence, and a full resolution component.

b. Adiletta et al. discloses a repeating sequence of full resolution image frames regularly interspersed between reduced resolution image frames.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heather R Long whose telephone number is 703-305-0681. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HRL
March 10, 2004



NGOC-YEN VU
PRIMARY EXAMINER